Pocket Frequency Counter IBQ2006 (ST/ H)

User Manual

-------***Characteristics:***

- Large screen display
- 9 digits LCD Display
- Low power consumption: It can be use 4 hours with the inside lithium battery
- RF signal strength bar chart
- Screen locking function
- Storage function
- Low power consumption

Specification:

Input Sensitivity (Typical)			
Model	IBQ2006ST		IBQ2006H
Amplifier	1M ohm	50 ohm	50 ohm
Impedance	1M ohm, 30pF	50 ohm VSWR<2:1	50 ohm VSWR<2:1
Range	10Hz-50MHz	1MHz-2.6GHz	1MHz-2.6GHz
Sensitivity	<18mV@10Hz-30MHz <25mV@30MHz-50MHz	<3mV@100MHz <3mV@400MHz <10mV@1GHz	<3mV@100MHz <3mV@400MHz <10mV@1GHz
Maximum Input	50 Vrms	15dBm	15dBm

Frequency Display Resolution:			
Range	Gate Time	LSD	Sample Display
50MHz	1 S	1 Hz	50000000 H
(IBQ2006ST only)	0.1 S	10 Hz	50000.00 K
	0.01 S	100 Hz	50000.0 K
	10 S	0.1Hz	50000000.0 H
2.6GHz	0.64 S	100Hz	2400.0000 M
	0.064 S	1000Hz	2400.000 M
	0.64 mS	100KHz	2400.0 M
	6.4S	10Hz	2400.00000 M

Cabinet: **PVC**

Display: **Dot matrix LCD**

Battery: **Internal 600mAh Lithium-ion battery pack**

Time-base: **< 1PPM (TCXO at IBQ2006ST)**

<10PPM (IBQ2006H)

Power: **5VDC 1A**

----***Using The frequency Counter***

Powering Frequency Counter

Turn on the Frequency Counter by pressing the LAMP key.

The Frequency Counter powers up in its last setup configuration.

Resetting the Frequency Counter

If you want to reset the Frequency Counter to the factory settings:

Turn off the Frequency Counter.

Press the MENU key and the LAMP key simultaneously.

Release the LAMP key firstly, and then the MENU key.

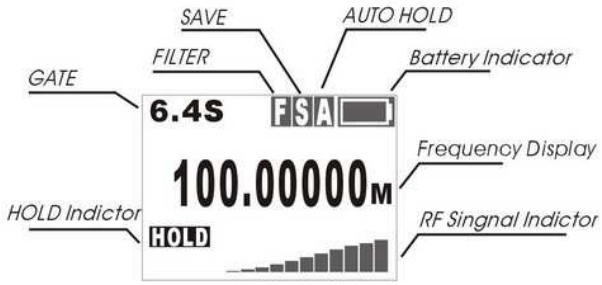
Open LCD backlight

Pressing the LAMP key can switch **LCD** back light on and off in measuring screen.

Hold the Measuring Result

Press the HOLD key to hold or release the measuring result, “Hold” will be displayed on bottom left of the LCD when holding.

Screen manifestation contents showed as following:



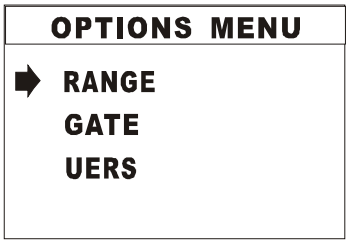
Enter the options menu

Press the MENU key for 2 seconds to enter the main menu.

Exit the menu

Press the MENU key for 2 second to exit the current menu level.

Operating the menu

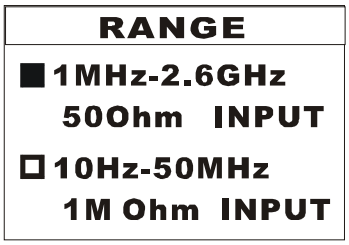


In the menu, the LAMP key stands for the upward direction, the HOLD key stands for the downward direction. Press the MENU key to enter the subordinate catalogue.

Setup the Range (IBQ2006-ST Only):

Press the MENU key (options menu)

Select the Option of “RANGE”,



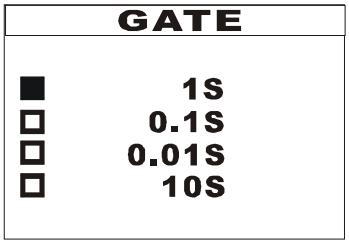
Press the LAMP key or the HOLD key to pick up, press the MENU key to confirm the operation and go back to “OPTIONS MENU”, and press more than 2 seconds to exit “OPTIONS MENU”.

The select of Gate Time:

In “OPTIONS MENU” choose “GATE”:

The 1MHz-2.6GHz of Range set up above is showed as following:

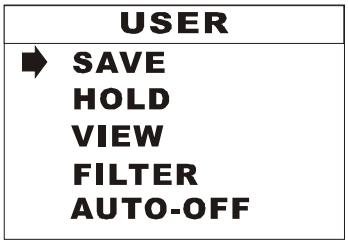
The 10Hz-50MHz of Range is:



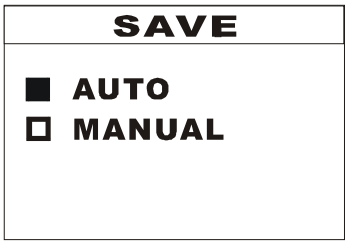
Press the LAMP key or the HOLD key to pick up the desired gate time, press the MENU key to confirm the operation and go back to “OPTIONS MENU”, and press more than 2 seconds to exit “OPTIONS MENU”.

Saving Screens

Pick up “USER” in “OPTION MENU”:



Pick up “SAVE” from “USER”:



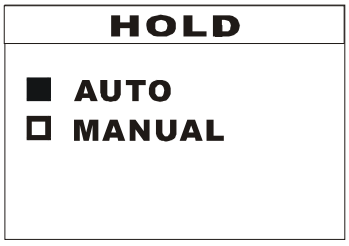
If selecting “AUTO” function, the measuring result will be automatically locked and stored.

If selecting “MANUAL” function, the HOLD key should be pressed in order to store the measuring results.

Storage machine can save up to 100 measuring results. Once the 101st result is stored, the 1st result will be eliminated automatically.

Freezing the Screen Setups

Pick up “HOLD” from “USER”:

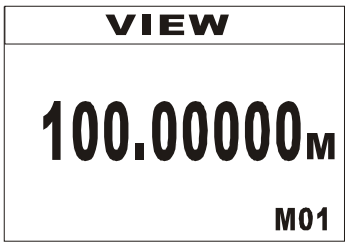


In selecting “AUTO” function, if the signal strength is over 50%, the measuring result will be stored automatically. Press the HOLD key to continue the operation.

In selecting “MANUAL” function, press the HOLD key to keep the measuring results and Press the HOLD key again to restart the operation.

Viewing Stored Screens

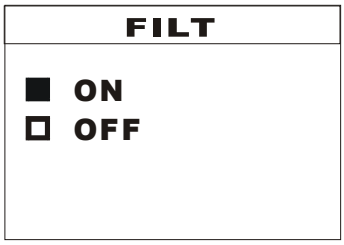
Pick up “VIEW” from “USER”:



Press the LAMP key or the HOLD key to look through the stored measuring results.

The filter function setup

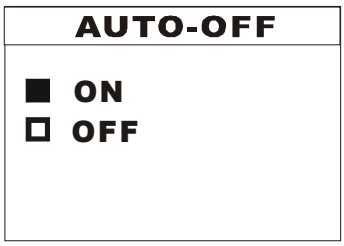
Pick up “FILTER” from “USER”:



In selecting “ON” state, the input signal will be filtered before measuring.

Auto off function setup

Pick up “AUTO-OFF” from “USER”:



In selecting “AUTO-OFF” function, if there is no operation for 5 minutes, the frequency counter will be shut down automatically.

Note: If the power adapter is connected, the “AUTO-OFF” function will be disabled.

Signal Input

When using the frequency counter with an antenna for signal collection, even if there is no signal, random counts may appear. This phenomenon is normal, due to the 20 dB high gain amplifier.

Do not exceed maximum signal input level!